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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT PAPER NUMBER

1755

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,328

Applicant(s)

NEMEH ET AL.

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 20-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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The examiner withdraws the indication of allowable subject matter defined in the previous office action in view of the new rejections defined below.

Claims 1-13 and 20-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for **Chinese** kaolin, does not reasonably provide enablement for kaolin (**all** types). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The specification only defines the process in relation to the processing of Chinese kaolin and not any and all other kaolin clays from different mines, thus the claims are broader in scope than the disclosure. Although the previous office action set forth an indefinite rejection of "Chinese kaolin", the office was looking for a definition and a showing of how this kaolin is different from other kaolin clays. Although the specification might set forth a definition on page 4, lines 4-8, this definition uses relative terms which makes the definition, itself, indefinite.

Claims 23-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter added to claim 23 is the limitation "high propensity to release alumina upon heating" since the specification never defines this. The specification states that the

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kaolin has a higher propensity to release alumina and since the specification does not define what is meant by higher, it does not reasonably define the claimed limitation of "high".

Claims 10 and 23-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite as to the limitation "at least of metakaolin, partially calcined kaolin, and fully calcined kaolin" because this limitation does not make sense and appears to be incomplete.

The terms "High" and "higher" in claim 23 are relative terms which renders the claim indefinite. These terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The other claims are indefinite because they depend on indefinite claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-13 and 23-28 are rejected under 35 U.S.C. 103(a) as obvious over *Mixon, Jr.*

*Mixon, Jr.* teaches in column 3, lines 57-68 and column 5, lines 3-5, a method for process kaolin comprising wet processing kaolin (to produce a clay that is at least 90% finer than 2 microns), spray drying the wet processed kaolin clay, pulverizing the spray dried product, calcining and repulverizing. Column 5, lines 29-39 states that the wet process could involve mechanical delamination, with grinding media, of a kaolin crude, as defined by U.S. Patent 3,171,718 of which the disclosure is incorporated by reference. The delamination step involves wet milling (with grinding media) a dispersed aqueous (slurry) suspension (column 7, lines 22-30 defines a dispersed aqueous suspension (slurry) as containing a dispersant) of kaolin clay. The characteristics of the calcining step is set forth in column 8, lines 15-23 and is defined in U.S. Patent 3,383,438 of which the disclosure is incorporated by reference. It is also stated that the calcined material can be pulverized one or more times. Turning to the references incorporated by reference, U.S. Patent 3,171,718 teaches that crudes used in the wet processing (delamination) step include clay crudes containing a substantial (significant) number of platelets having a size above 2 microns-see column 2, lines 39-45 (i.e. this crude can be used as the crude that is wet processed according to *Mixon, Jr.*). U.S. Patent 3,383,438 teaches calcining

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parameters in column 3, lines 12-42 (i.e. these calcining parameters can be used for the calcining step according to *Mixon, Jr.*).

When the teachings of *Mixon, Jr.* are taken as whole, with the disclosures of U.S. Patents 3,171,718 and 3,383,438 (these patent disclosures are incorporated by reference), *Mixon, Jr.* teaches a method for process kaolin comprising wet processing kaolin crudes (crude contains a substantial (significant) number of platelets having a size above 2 microns (i.e. substantial number broadly reads on at least 90% as defined according to the instant claims)), spray drying the wet processed kaolin clay, pulverizing the spray dried product, calcining (at the calcining parameters defined by U.S. Patent 3,383,438 which encompass the claimed values) and repulverizing, wherein the calcined material can be pulverized one or **more times**.

The reference teaches a process which includes all of the claimed steps and although the multiple pulverization step is after the calcining step of the reference and the claimed invention is done before the calcining step, no distinction is seen to exist because reversing the order of steps in a process does not impart patentability when no unexpected result is obtained. Ex parte Rubin (POBA 1959) 128 U.S.P.Q. 440, Cohn v. Comr. Pats. (DCDC 1966) 251 F Supp 378, 148 U.S.P.Q. 486. In view of this, the multiple pulverization prior to calcining is obvious and well within the level of ordinary skill in the art. In addition, pulverization is used to produce the desired sized material and pulverization prior to calcining is known as shown by *Mixon, Jr.* The use of multiple pulverization steps is obvious to the skilled artisan in order to ensure that the desired particle size is obtained. More than one pulverization step is better than only one pulverization since the second and subsequent pulverization steps will optimize the uniformity of

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the size distribution. In view of this, one skilled in the art would have appreciated and therefore found the use of multiple pulverization steps obvious.

Assuming *arguendo* about the kaolin processed (this part of the rejection is based on the assumption that Chinese kaolin is processed), it is the examiners position that one skilled in the art would have appreciated that any type of kaolin can be processed in this manner. In addition, irrespective of what the material is called, the method of forming it is the same, thus no distinction is seen to exist. Finally, the *Mixon, Jr.* teaches processing of kaolin, in general, (see column 1, lines 6-20-no limitation placed on the kaolin type) and therefore this reads on and makes obvious the processing of any type kaolin clay because the reference does not limit the clay to a specific type. Although column 5, lines 10 defines Georgia kaolin, the reference uses "such as" and "such as" is not indicative of this being the only clay that can be processed. It is merely defining an example.

*Mixon, Jr.* teaches or suggests percentages, sizes values, temperatures and times which all encompass the claimed values and therefore the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976). In view of the above, claims 1-9 and 11-13 are met.

In addition to the above, although *Mixon, Jr.* does not literally define the high carbon content and high propensity limitation (silent as to these limitations), the examiner is unclear as

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to these limitations, as defined above. In addition, it is the examiners position that these are inherent characteristics of the clay itself absent evidence to the contrary, In other words, it is the examiner position that the clay according to the reference can have a carbon content and can release alumina upon heating absent evidence to the contrary. Since applicants have not defined what is meant by "high" it can be reasonably assumed that the clay according to the reference can meet this criteria. Assuming arguendo about the kaolin processed, it is the examiners position that one skilled in the art would have appreciated that any type of kaolin can be processed in this manner. In addition, irrespective of what the material is called, the method of forming it is the same, thus no distinction is seen to exist. Finally, the *Mixon, Jr.* teaches processing of kaolin, in general, (see column 1, lines 6-20-no limitation placed on the kaolin type) and therefore this reads on and makes obvious the processing of any type kaolin clay because the reference does not limit the clay to a specific type. Although column 5, lines 10 defines Georgia kaolin, the reference uses "such as" and "such as" is not indicative of this being the only clay that can be processed. It is merely defining an example. In view of this, claims 23-28 are met.

Claim 10 is rejected under 35 U.S.C. 103(a) as obvious over *Mixon, Jr.* in view of *Maxwell et al.*

*Maxwell et al.*, in column 2, lines 15-18, suggests that pulverization of kaolin clay lowers the bulk density.

The remarks defined in the above rejection are incorporated herein by reference.

Although *Mixon, Jr.* does not literally define a first bulk density and a second bulk density less



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than the first bulk density, it is the examiners position that pulverization affects the bulk density of the product and since the multiple pulverization steps before the calcining step is obvious (see above), one would expect that the bulk density of the pulverized clay to be less than that of the unpulverized clay. To support the examiners position, reference is made to Maxwell et al., column 2, lines 15-18, which clearly suggests this concept.

In view of this, claim 10 is met.

Claims 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious Hen et al.

Hen teaches a kaolin clay material which has an oil absorption and brightness within the claimed range (col. 9, lines 5-10 and tables 2, 3, and 4).

The claimed invention is anticipated by the reference because the reference teaches a kaolin clay which has all of the claimed characteristics. Although the processing used to make the clay is not the same, no distinction is seen to exist because applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention because the clay is the same, irrespective of how it was made.

Applicant's arguments filed 7/28/05 have been fully considered but they are not persuasive.

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Applicants argue that Hen does not teach the claimed method involved in claims 20-22. The examiner acknowledges, this but the process limitations used to make the product are not patentable limitations, as is clear from the above case law.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

**A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.**

**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971).**

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and

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lower limits) the claimed range to show the criticality of the claimed range. *In re Hill 284 F.2d 955, 128 USPQ 197 (CCPA 1960).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/05

MM

Michael A. Marcheschi  
Primary Examiner  
Art Unit 1755